

scribed, combined with a slotted loop, as described, for the purpose of making a series of stitches.

1,443.—Isaac Goodspeed, of Norwich, Conn., assignor to A. A. Goodspeed, of Putnam, Conn., and E. S. Stebbins, of Worcester, Mass., for an improvement in Cork Machines:

I claim, first, The changeable conical patterns, b and c, arranged in the machine substantially as described.

Secondly, I claim the adjustable screws, r, or their equivalent, for the purpose set forth.

1,494.—T. S. Hudson (assignor to himself and Thomas Leighton), of East Cambridge, Mass., for an improvement in Barometer Inkstands:

I claim the improved barometric inkstand, as made with the semi-dome of tunnel, C, or the same and a cover, D, arranged and combined with the ink fountain and its neck, and to operate therewith substantially as specified.

1,495.—E. S. Scripture (assignor to himself and Edward White), of New York City, for an improvement in Axle Collars:

I claim, first, The metallic cellular collar, made in the manner shown, and for the purpose or purposes set forth and described.

Second, I claim the sectional slide packers, made in the manner and for the purpose described.

Third, I also claim the metallic cellular collar, the sectional slide packer, with its flange, in combination with the protecting collar, flange and gasket, when the same shall be used substantially in the manner as shown, and for the purpose or purposes set forth and described.

1,496.—Russell Smith (assignor to S. S. Wheeler), of Danbury, Conn., for an improvement in Machines for Felted Hat Bodies:

I claim the spring, E, having a curvature concentric, or nearly so, to the barrel, B, in combination with the slides, d, d', and rollers, D, D' and C, G, of a hat felting or sizing machine, when operated by the slide, G, and lever, H, or their equivalents, substantially as shown.

1,497.—Caspar Zwicky (assignor to John Mason, Anthony Snyder and Nicholas Snyder), of Pittsburgh, Pa., for an improvement in Looms:

I claim, in combination with the cams, F, on the fast-moving shaft, B, for operating the rods, G, the cam, I, on the slow shaft, K, for shifting said rods, substantially as and for the purpose described.

I also claim, in combination with the cams, F, secured to the upper shaft of the loom, the rods, G, levers, H and M, and pickerstaffs, O, when constructed and operated substantially in the manner herein described.

I also claim a three-sided shuttle, the two straight sides of which are in contact with the shuttle race, and bear the relation of an acute angle to each other, while the third or outer side is convex, substantially as and for the purpose described.

I also claim, in combination with a three-sided shuttle, as described, a shuttle race, the two sides of which bear the relation of an acute angle to each other, to conform to the sides of the shuttle and allow the shuttle to run close to or in contact with the race frame, substantially in the manner described.

RE-ISSUES.

88.—G. D. Baldwin, of New York City, assignee of J. H. Butterworth, of Dover, N. J., for an improvement in Door Locks. Patented April 11, 1846, and extended

I claim, first, The part described, or its equivalent, when combined with a movable talon that can yield to the pressure of the key bit or key to a point beyond its range, in the manner and for the purpose set forth.

Second, I claim the use or employment of one or more sets of rotating cam or disk plates, such as described, having two or more in a set, on the same stem, so that it cannot be withdrawn until all the plates are rotated in such a position relative to the tumblers that the remaining parts can enter the notches in the circular cam plates, pass within the line of their periphery, and so allow the tumbler to withdraw from contact with and resistance to the withdrawal of the bolt.

Third, I claim the use or employment of cam or disk plates, two or more, in a set having the same center or key bolt, when so constructed

that one plate only is attached to the key bolt, the next plate being moved by the pin projecting from its surface coming in contact with the ends of the alids described, or in any analogous manner that allows the plate acted upon by the key to move, during a part of its revolution, without engaging and carrying around the next plate.

Fourth, I claim the use or employment of plates such as are described, two or more in a set, when so constructed and arranged as to require the motion of the key to be reversed, in order to set each succeeding plate into such a position that the tumblers can descend into their notches and relieve the bolt.

Fifth, I claim the use of a plurality of cam or disk plates in one set, operated by one key, key bolt or stem, when so constructed that the plates are to be set consecutively by means of the same key, key bolt, stem, or their equivalent, each plate to its own proper position, according to the existing combination, by the aid of the same index, so as to relieve the bolt from the tumbler or other mechanism combined with the plates, that has kept the bolt from being drawn back.

Sixth, I claim the use or employment of a disk or cam plates, such as described, combined by levers or their equivalent with the talon that draws back the bolt, when so arranged that the talon is thereby withdrawn beyond the range of the key bit, and only allowed to come within its range so as to be acted upon by it when the plates have been brought into such a position as to allow that part of the levers that rest upon the edges of the plates to pass into the notches with the line of their periphery.

Seventh, I claim separate pieces of metal, 2222, moving upon pins, when used in connection with cam plates, so as to change the point of contact between the plates themselves, and thus diversify, regularly or irregularly, the combination of permutation locks.

89.—Richard Vose, of New York City, for an improved Car Spring. Patented Jan. 3, 1860:

I claim placing the india-rubber disks of said spring between interposed disks formed of some fibrous material, substantially in the manner and for the purpose set forth.

When the india-rubber disks in a car spring are placed between interposed disks formed of some fibrous material, I also claim combining internally-grooved metallic rings, C C, with the peripheries of said disks, substantially in the manner and for the purpose set forth.



H. T., of Pa.—It is stated that Paul Jones hoisted the first American flag ever displayed, on board of the *Alfred*, a brig of 30 guns. This was early in the year 1776. The device on the flag is not positively known, but it is stated to have been a pine tree, with a rattlesnake coiled at its roots. Paul Jones scoured the British coast and bearded the lion in his den in the *Ranger*, a ship carrying only 18 guns.

J. L., of Mass.—To coat small tin buttons with black varnish, introduce them into the varnish with a perforated dipper, lift them out, allow them to drip, and then introduce them into a drying oven. The varnish should be kept quite hot and the buttons separated from each other when placed in the oven to dry. They may require two coats to cover them perfectly.

W. B. G., of N. Y.—The fish-tail propeller is not well adapted for vessels, because it produces a vibratory motion, and this should always be avoided if possible. Such propellers, we believe, have been tried in England, and have not succeeded.

H. E., of Mich.—We are in daily communication with the Patent Office, and the business is going on favorably.

T. H. W., of Ohio.—Gun cotton ignites so instantaneously that it is liable to burst the barrels of rifles, otherwise it would be preferable to gunpowder, on account of its greater cleanliness. Use coarse or slow igniting powder for your rifle to avoid the recoil incident to the use of fine-grained powder when the bullet fits snugly in the barrel.

W. S. R., of N. Y.—The density of lead is not increased by hammering and pressure. When perfectly solid, it is but very slightly compressible.

E. W. F., of Pa.—Your plan of a water tank for a target to measure the penetrating power of projectiles seems to us a good one, were it not for the inconvenience of the water running out through the shot holes. There is a far simpler plan than yours for obtaining the varying twist in rifle grooves.

D. H. P., of N. H.—The application of a percussion cap to the point of a bombshell or explosive projectile of any kind is not new. Dr. Read, of Ala., took patents, through this office, in various European countries, in 1836, for a shell which was provided with a cap to produce explosion in coming in contact with a ship or any other obstacle. The government, under Floyd's administration of the War Department, aided Mr. Read in his experiments at West Point, and we presume his shells are in use in the Confederate States.

Money Received

At the Scientific American Office on account of Patent

Office business, during one week preceding Wednesday, June 19, 1861:—

S. M. R., of Mass., \$25; E. H. L., of N. Y., \$15; L. B., of Mich., \$20; D. E. T., of N. Y., \$25; S. D., of N. Y., \$15; T. B. R., of Ill., \$15; M. L. G., of Ill., \$35; D. R., of N. Y., \$10; C. E., of Germany, \$135; C. B., of Pa., \$15; P. D., of N. Y., \$15; W. & M., of Mass., \$40; H. L. P., of Mich., \$20; W. & F., of N. J., \$20; J. & G., of Wis., \$20; S. Z. S., of Pa., \$20; J. H., of N. Y., \$20; D. & Co., of Ind., \$50; A. K., of N. Y., \$25; R. L., of Mass., \$15; J. W. F., of N. Y., \$25; J. H., of Wis., \$20; S. & B., of Wis., \$15; T. R. R., of Ohio, \$25; T. C. H., of N. Y., \$25; J. H. B., of N. J., \$25; H. K., of Conn., \$50; G. W. Van B., of Wis., \$15; S. E. O., of Ohio, \$30; J. G., of Mass., \$20; T. S. & T. W. R., of N. Y., \$30; P. D. Van H., of N. Y., \$40; C. W. S., of Maine, \$20; J. S. S., of N. Y., \$40; C. A. A., of Conn., \$20; F. N., of Conn., \$20; D. McK., of N. Y., \$25; J. & M., of N. Y., \$25; T. C. N., of N. Y., \$25; H. D. & P., of N. Y., \$25; J. F. W., of N. Y., \$25; T. R., of N. Y., \$40; A. L. W., of Mass., \$25; S. C., of N. Y., \$30; J. B. W., of Pa., \$27; C. S. B., of N. Y., \$15; B. & B., of Pa., \$15; P. & L., of Mich., \$12; A. J. S., of Iowa, \$20; S. N., of Conn., \$25.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from June 12 to Wednesday, June 19, 1861:—

L. B., of Mich.; J. F. W., of N. Y.; J. H., of Wis.; D. McK., of N. Y.; J. & M., of N. Y.; H. K., of Conn. (3 cases); S. C., of N. Y.; T. R., of N. Y.; J. W. P., of Ind.; S. & F., of N. Y.; S. N., of Conn.; K., of N. Y.; J. McK., of Pa.; T. R. E., of Ohio; A. L. W., of Mass.; G. B., of England; T. O. H., of N. Y.; M. L. G., of Ill.; P. & L., of Mich.; D. & Co., of N. Y.; D. E. T., of N. Y.; S. M. R., of Mass.



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